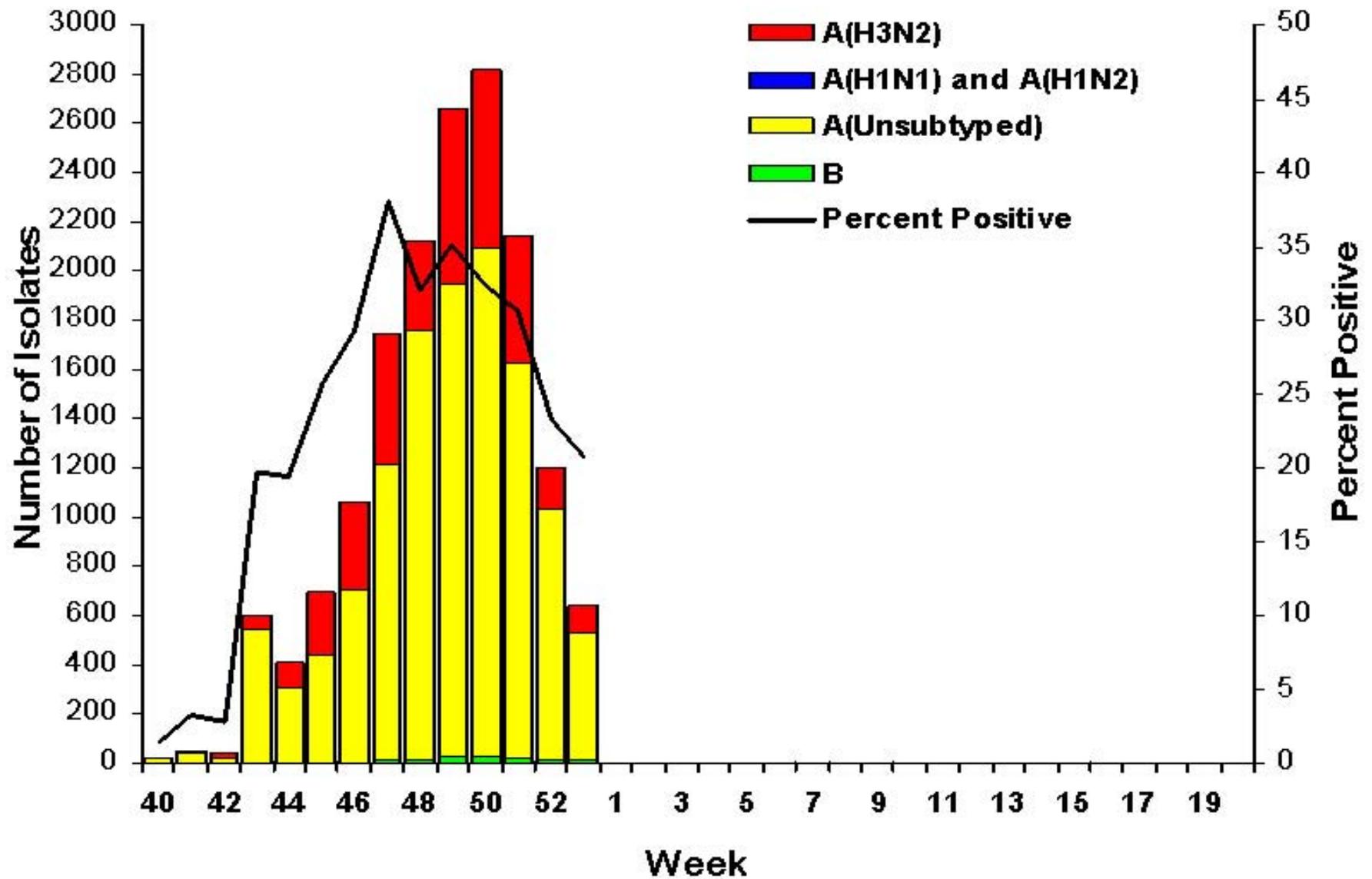

Influenza Update

William Atkinson, MD, MPH

Influenza Surveillance in the United States

- **Laboratory characterization of viruses**
- **Influenza activity as assessed by State and Territorial Epidemiologists**
- **Influenza-like illness surveillance by sentinel providers**
- **Pneumonia and influenza mortality in 122 U.S. cities**

WHO/NREVSS Collaborating Laboratories National Summary, 2003-04



Influenza Virus Surveillance Through January 3, 2004

- **>99% of influenza viruses are type A**
- **>99% of A viruses are H3N2 subtype**
 - **22% A/Panama/2007/99**
 - **78% A/Fujian/411/2002**

Influenza Vaccine Virus Selection

- **3 viruses (H3N2, H1N1 and B)**
- **A/Fujian H3N2 strain not included**
 - **Strains chosen by FDA in February**
 - **A/Fujian detected late**
 - **A/Fujian virus suitable for vaccine manufacture not available in time**

2003 Vaccine Effectiveness

- **A/Panama-like and A/Fujian-like viruses related but antigenically distinguishable**
- **Antibodies to Panama cross react with A/Fujian-like viruses**
 - **Some cross immunity expected**
- **Vaccine effectiveness needed to estimate protection**

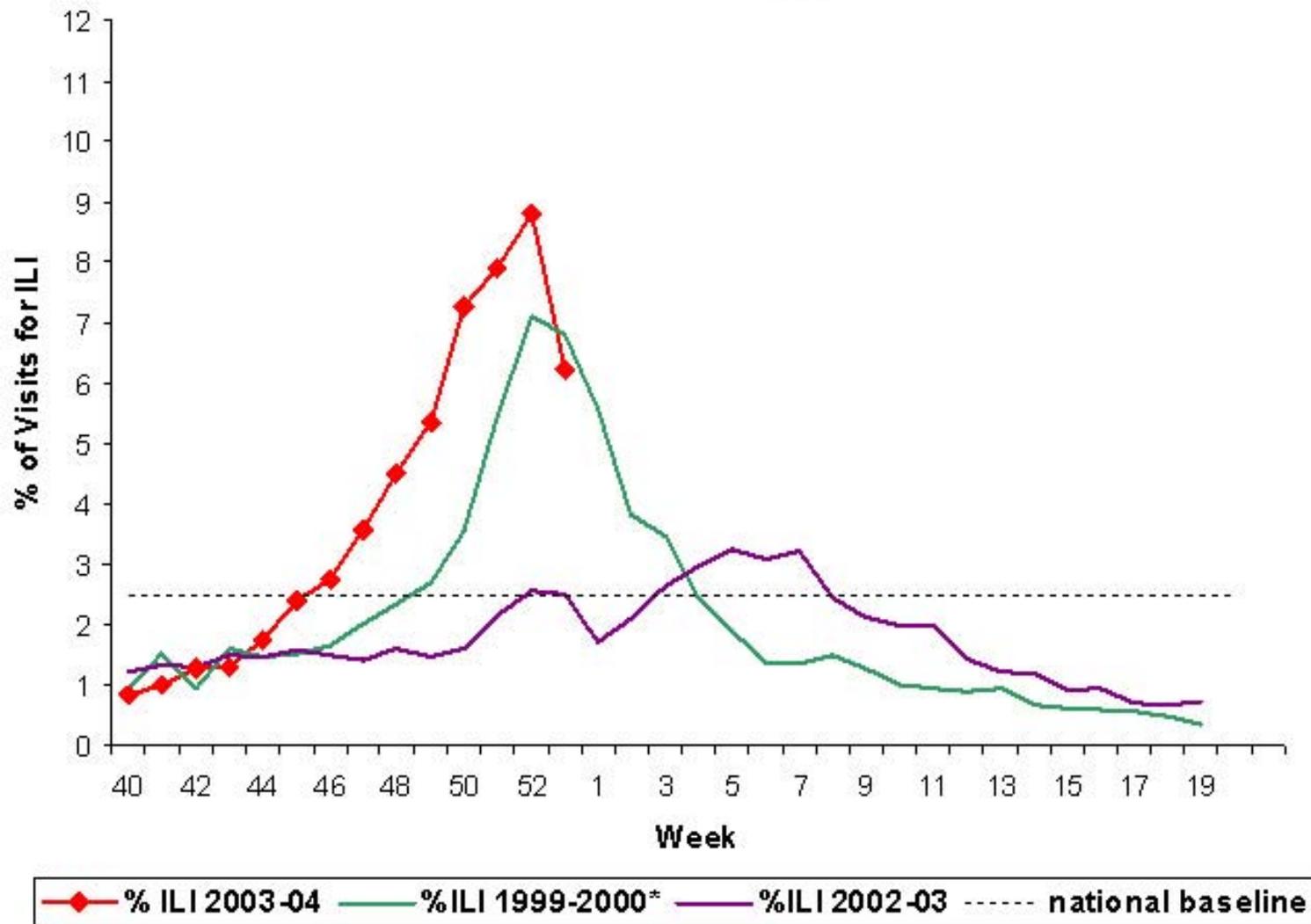
Vaccine Effectiveness Study

- Retrospective cohort study of employees of a hospital in Colorado
- Outcome was influenza-like illness (ILI: fever plus either cough or sore throat)
- Vaccine not shown to be effective against ILI
- May underestimate true effectiveness

Vaccine Effectiveness Study

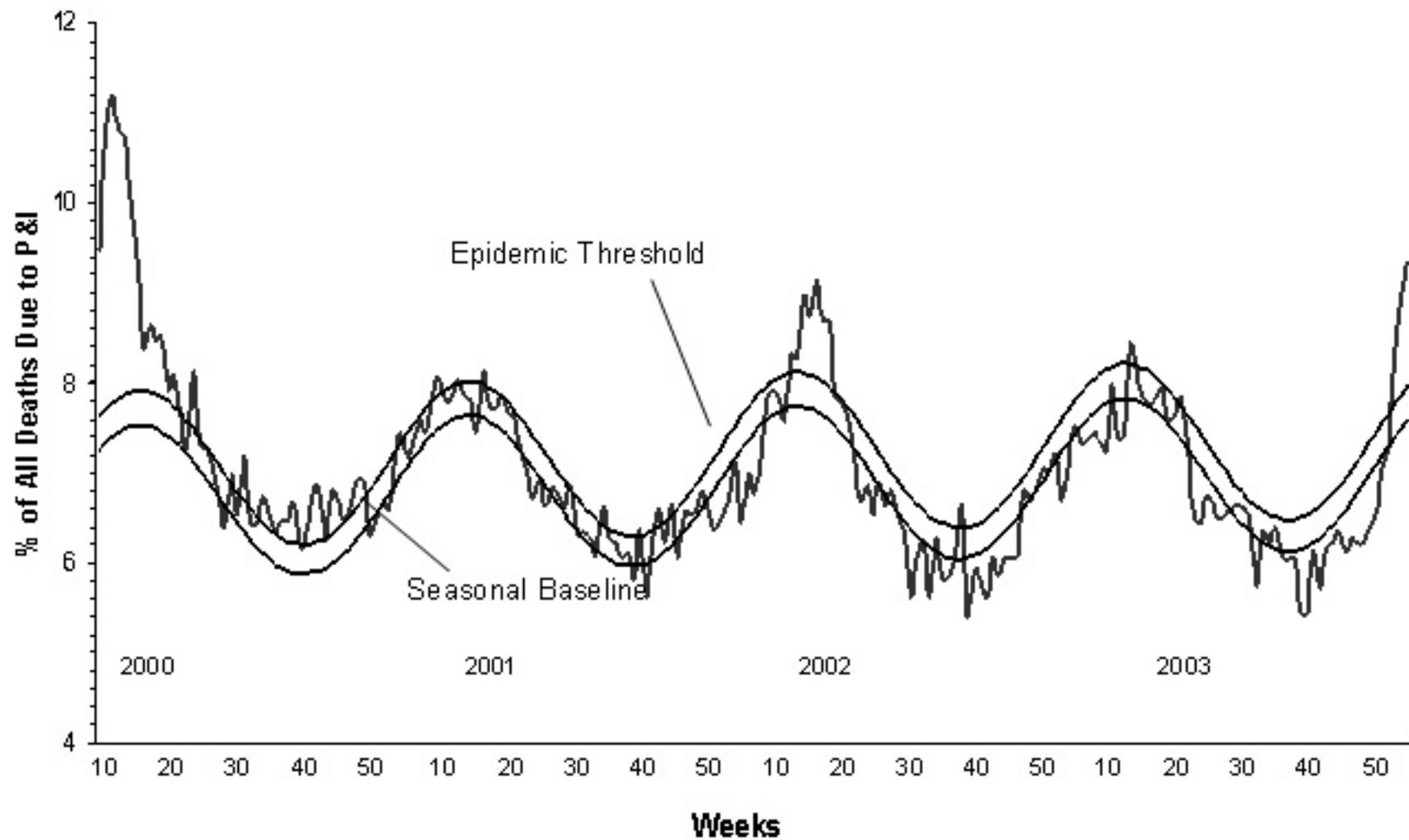
- **Colorado study could not determine vaccine effectiveness against lab confirmed influenza, H1N1, B, or severe complications**
- **Study results do not change current vaccination recommendations**
- **Additional studies in progress**

Percentage of Visits for Influenza-like Illness Reported by Sentinel Providers National Summary, 2003-04



* The 1999-2000 season was selected for comparison because it was the most recent A(H3N2) season of moderate severity.

Pneumonia and Influenza Mortality for 122 U.S. Cities Week Ending 01/03/2004



Influenza-Associated Deaths in Children

October 2003 – January 2004*

- 93 deaths children <18 years
- Median age 4 years (range 4 weeks to 17 years)
- 55% female
- Reported from 31 states

*data as of January 6, 2004

Influenza-Associated Deaths in Children

October 2003 – January 2004*

- **All with confirmed influenza infection**
- **35 (38%) underlying condition**
- **41 (44%) no known conditions**
- **Secondary bacterial infections**
- **Additional investigation underway**

***data as of January 6, 2004**

Influenza Vaccine Supply

- **Aventis Pasteur (Fluzone)**
 - All pediatric and adult doses have been distributed
- **Evans/Chiron (Fluvirin)**
 - 75,000 doses remain on contract
- **Wyeth/MedImmune (FluMist)**
 - 2 million doses available

Influenza Vaccine Recommendations

- Two pediatric (0.25 mL) doses of Fluzone[®] may be combined to make one “adult” dose
- Must be given as two separate injections
- Do NOT attempt to transfer vaccine to another syringe

Influenza Vaccine Recommendations

- **Fluvirin[®] (Evans/Chiron) may NOT be administered to children 6-47 months of age**
- **Only Fluzone[®] (AP) may be used for children 6-47 months of age**

Influenza Vaccine Recommendations

- An adult dose of Aventis Pasteur influenza vaccine cannot be split into two pediatric doses
- **NEVER** attempt to transfer vaccine into another syringe
- **EXCEPTION:** Drawing a 0.25 mL dose from a 10 dose vial is acceptable

LAIIV Administration

- **Vaccine licensed only for healthy people 5-49 years of age**
- **Should not be administered to persons with immunosuppressed contact**
- **Should not be administered by persons who are immunosuppressed**

Influenza Vaccine Recommendations

- **Live attenuated influenza vaccine (LAIV, FluMist™) shipped since December 31, 2003 can be stored in a conventional frost-free freezer without a Freezebox**
- **LAIV may NOT be stored in a refrigeration unit without a separate freezer compartment**

National Immunization Program

- **Hotline** **(800) 232-2522**
- **Email** **nipinfo@cdc.gov**
- **Website** **www.cdc.gov/nip***

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